Bulletin 330C
6/00

Eclipse Combustion

IMMERSOJET BURNERS

High-Efficiency Immersion Heating Systems

Designed for high performance and convenience.

ImmersoJet burners fire at high capacities through a small diameter immersion tube. The combustion gases from the burner scrub the inner tube surfaces to produce the highest heat transfer rate of any immersion burner available.

Other ImmersoJet benefits are:

- Produces the industry's highest heat capacities and efficiencies.
- Tube requirements save valuable space inside the tank.
- Comes mounted with a reliable low or high pressure blower for ease of installation.
- Quickly transfers heat to the immersion tube, resulting in lower burner surface temperature.
- Provides faster heat-up times than any other immersion burner.
- Combustion chamber is outside the tank, taking up less space and providing more uniform heat.
- Unique nozzle design ensures quiet operation.

Ideal for retrofits.

In conventional immersion heating, every cubic inch of a tank is crammed with a bulky, large diameter tube. Replacing this tube with a compact ImmersoJet tube can provide substantial advantages:

- Easier tube fabrication
- Lower tube material costs
- Easier handling and installation
- Reduced fuel costs
- Higher tank temperatures

Perfect for new tanks, too.

Patent No. 6050809
Patent No. 5934898

By combining high efficiency with small diameter tubes, the ImmersoJet gives you great design flexibility. With ImmersoJet you can:

Minimize tank size. Reduce material and fabrication costs, and conserve floor space.

Reduce operating costs. Minimize fuel costs, or increase production.

Reduce area requirements. ImmersoJet tubes take up less space in a tank, allowing you greater design flexibility.

Benefit from multi-fuel capability. Standard burner can be configured for natural gas, propane or butane fuel.

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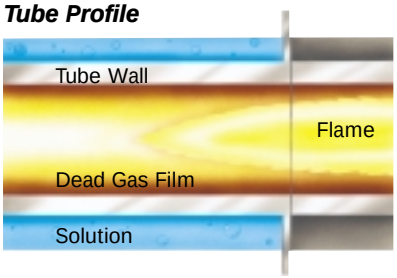
ImmersoJet Burners

Provides 80%+ efficiencies and space-saving tube requirements.

High Velocity Equals High Efficiency

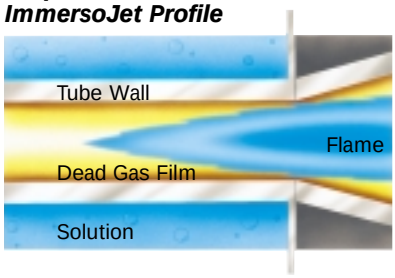
When you compare state-of-the-art ImmersoJet design with conventional immersion burners and tubes, ImmersoJet clearly comes out on top.

Conventional Immersion Tube Profile



- A lazy, low velocity flame travels down the tube causing a "dead gas film" to build up on the inside wall, reducing heat transfer efficiency.
- Tube size limits system efficiency potential to 70%

Eclipse Combustion ImmersoJet Profile



- A robust, high velocity flame scrubs the inner tube surface, minimizing dead gas film.
- System efficiencies in excess of 80% are possible with smaller tube configurations.

Equal Heat in Half the Area!

Compare the conventional tube with the tube designed for use with the ImmersoJet, each designed for 70% efficiency with an input of 1 MM Btu/hr. Clearly, the ImmersoJet style tube is much smaller.

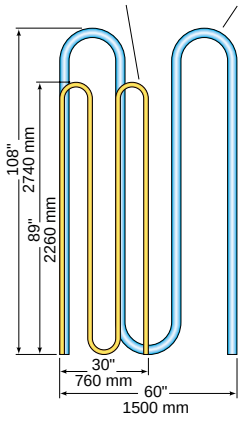
If this were a new tank, you could reduce tank size to fit the ImmersoJet tube, saving floor space and material costs.

Or, if floor space permits, you could lengthen the ImmersoJet tube and possibly add another pass in order to achieve efficiencies in excess of 80%.

In either case, ImmersoJet provides great flexibility in designing an immersion system that best meets your specific performance and space requirements.

ImmersoJet
3" Dia., 30' Long
76 mm, 9 m

Conventional
6" Dia., 37' Long
150 mm, 11 m



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